

Applicants : Roland Busse  
For : DEVICE FOR FEEDING POULTRY ESPECIALLY FATTENED  
POULTRY, PREFERABLY BOILERS

10/500078

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In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-19 (cancelled)

20. (new) A device for the feeding of free-range poultry kept in a coop with at least one feed delivery pipe held above a floor of the coop and capable of being raised and lowered, the pipe having at least one aperture, comprising:

a bowl device configured to be suspended on the feed delivery pipe, the bowl device including a feed bowl located beneath a downpipe, the bowl device further including a cupola formed from grid bars in spoke fashion, wherein the downpipe comprises an inner cylinder configured to depart from the aperture and an outer cylinder encompassing the inner cylinder, on which the bowl is suspended by the grid bars of the bowl cupola in such a way that, when the feed delivery pipe is lowered, the bowl comes to rest on the floor of the coop, wherein the outer cylinder is guided in a rotatable manner as well as in a raisable and lowerable manner on the inner cylinder, and at least one lifting stop is provided for delimiting a lifting and lowering path of the bowl;

wherein the downpipe includes at least one rotational stop delimiting a rotational path of the outer cylinder in relation to the inner cylinder.

21. (new) A device according to claim 20, wherein:

each rotational stop features at least one elevation, arranged in a predetermined area of the outer surface of the inner cylinder and at least one driver dog located on the inner surface of the outer cylinder, into the rotational path of which, at the rotation of the outer cylinder about the inner cylinder, the elevation projects.

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22. (new) A device according to claim 21, wherein:

a predetermined area of the outer surface of the inner cylinder in its upper head part is offset in relation to a remaining portion of the inner cylinder as a result of reduced cylinder diameter.

23. (new) A device according to claim 20, wherein:

the outer surface of an upper cylinder section of the outer cylinder includes a threaded spindle, and that free ends of the grid bars of the bowl cupola are connected to a screw ring, which is screwed onto an area of the outer cylinder having the threaded spindle.

24. (new) A device according to claim 23, wherein:

the outer cylinder features at least one spring-elastic engagement cam in an area defined by the threaded spindle.

25. (new) A device according to claim 24, wherein:

each engagement cam comprise an engagement cam which is spring-elastic in a radial direction.

26. (new) A device according to claim 24, wherein:

a screw ring of the bowl cupola includes cut-outs on its inner circumference surface, with which the engagement cams are capable of engaging with positive fit.

27. (new) A device according to claim 26, wherein:

the engagement cams and the cut-outs include run-in flanks arranged obliquely to the direction of rotation.

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28. (new) A device according to claim 20, wherein:

the outer cylinder and the inner cylinder is comprised in each case of adjacent cylinder sections co-axial to each other, whereby face peripheral areas of the cylinder sections turned towards each other are connected to one another by bridging elements which bridge a gap area which corresponds to an interval distance between the cylinder sections.

29. (new) A device according to claim 20, wherein:

an end-side cylinder section of the inner cylinder covers the gap area between the cylinder sections of the outer cylinder, when the outer cylinder is moved by the raising of the feed delivery pipe into a position which is lowered in relation to the inner cylinder, in which lifting stops of the inner cylinder and the outer cylinder are in mutually opposed positions.

30. (new) A device according to claim 20, wherein:

the lifting stop comprises a recess in the cylinder inner surface of the outer cylinder and at least one abutment shoulder for the recess projecting radially from the inner cylinder.

31. (new) A device according to claim 30, wherein:

each abutment shoulder for the recess is a part of a radial projection in a form similar to a collar flange.

32. (new) A device according to claim 20, wherein:

each bridging element is a flat web, of which a web surface plane is aligned radially to the axis of the individual inner cylinder or outer cylinder in each case.

33. (new) A device according to claim 32, wherein:

the bridging elements of the outer cylinder comprise paddles or vanes projecting over a periphery of the outer cylinder into the feed bowl.

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34. (new) A device according to claim 20, wherein:  
the feed bowl includes a feed plate, which in an area of its plate edge includes connecting elements for connecting to the bowl cupola.
35. (new) A device according to claim 34, wherein:  
the connecting elements include a flap joint and at least one locking or retaining element.
36. (new) A device according to claim 34, wherein:  
a ring surface of the feed plate runs around a plate center, which is configured to be located beneath the downpipe, and is subdivided into feeding sections.
37. (new) A device according to claim 36, wherein:  
each feeding section comprises at least one pocket delimited by depression or elevation.
38. (new) A device according to claim 36, wherein:  
the number of feeding sections is equal to a multiple of the number of the bridging elements of the outer cylinder.
39. (new) A device according to claim 38, wherein:  
the bridging elements comprise paddles or vanes.
40. (new) A device for the feeding of free-range poultry kept in a coop with at least one feed delivery pipe held above a floor of the coop and capable of being raised and lowered, the pipe having at least one aperture, comprising:

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a bowl device configured to be suspended on the feed delivery pipe, the bowl device comprising a feed bowl, a cupola, and a downpipe;

the feed bowl being located beneath the downpipe;

the cupola being formed from grid bars in a spoke fashion;

wherein the downpipe comprises an inner cylinder configured to depart from the aperture and an outer cylinder encompassing the inner cylinder;

wherein the feed bowl is suspended by the grid bars of the bowl cupola in such a way that, when the feed delivery pipe is lowered, the bowl comes to rest on the floor of the coop;

wherein the outer cylinder is guided in a rotatable manner as well as in a raisable and lowerable manner on the inner cylinder;

wherein the bowl device includes at least one lifting stop for delimiting a lifting and lowering path of the bowl; and

wherein the downpipe includes at least one rotational stop delimiting a rotational path of the outer cylinder in relation to the inner cylinder.

41. (new) A device according to claim 40, wherein:

each rotational stop includes at least one elevation and at least one driver dog;

the at least one elevation is arranged in a predetermined area of the outer surface of the inner cylinder;

the at least one driver dog is located on an inner surface of the outer cylinder; and

the at least one driver dog includes a rotational path of which, at the rotation of the outer cylinder about the inner cylinder, the elevation projects.

42. (new) A device according to claim 41, wherein:

a predetermined area of the outer surface of the inner cylinder at an upper head part includes a reduced cylinder diameter compared to a remaining portion of the inner cylinder; and

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the predetermined area is offset in relation to a remaining portion of the inner cylinder as a result of reduced cylinder diameter.

43. (new) A device according to claim 40, wherein:

the outer surface of an upper cylinder section of the outer cylinder includes a threaded spindle; and

free ends of the grid bars of the bowl cupola are connected to a screw ring, which is screwed onto an area of the outer cylinder having the threaded spindle.

44. (new) A device according to claim 43, wherein:

the outer cylinder features at least one spring-elastic engagement cam in an area defined by the threaded spindle.

45. (new) A device according to claim 44, wherein:

each engagement cam is spring-elastic in a radial direction.

46. (new) A device according to claim 44, wherein:

the bowl cupola includes a screw ring;

the screw ring includes cut-outs on an inner circumference surface thereof; and

the cut-outs are capable of engaging the engagement cams with a positive fit.

47. (new) A device according to claim 46, wherein:

the engagement cams and the cut-outs include run-in flanks arranged obliquely to a direction of rotation.

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48. (new) A device according to claim 40, wherein:

the outer cylinder is comprised of adjacent outer cylinder sections co-axial to each other, whereby outer face peripheral areas of the outer cylinder sections turned towards each other are connected to one another by outer bridging elements which bridge an outer gap area, which corresponds to an outer interval distance between the outer cylinder sections; and

the inner cylinder is comprised of adjacent inner cylinder sections co-axial to each other, whereby inner face peripheral areas of the inner cylinder sections turned towards each other are connected to one another by inner bridging elements which bridge an inner gap area, which corresponds to an inner interval distance between the inner cylinder sections.

49. (new) A device according to claim 40, wherein:

an end-side cylinder section of the inner cylinder covers the gap area between the outer cylinder sections of the outer cylinder when the outer cylinder is moved by the raising of the feed delivery pipe into a position which is lowered in relation to the inner cylinder;

the inner cylinder and the outer cylinder each include one of the at least one lifting stop; and

the lifting stops of the inner cylinder and the outer cylinder are in mutually opposed positions.

50. (new) A device according to claim 40, wherein:

the at least one lifting stop comprises a recess in a cylinder inner surface of the outer cylinder and at least one abutment shoulder for the recess projecting radially from the inner cylinder.

51. (new) A device according to claim 50, wherein:

each abutment shoulder for the recess is a part of a radial projection.

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52. (new) A device according to claim 40, wherein:

each bridging element is a flat web, of which a web surface plane is aligned radially to an axis of the individual inner cylinder or outer cylinder in each case.

53. (new) A device according to claim 52, wherein:

the bridging elements of the outer cylinder comprise paddles or vanes projecting over a periphery of the outer cylinder.

54. (new) A device according to claim 40, wherein:

the feed bowl includes a feed plate; and

the feed plate includes a plate edge having connecting elements for connecting the feed plate to the bowl cupola.

55. (new) A device according to claim 54, wherein:

the connecting elements include a flap joint and at least one locking or retaining element.

56. (new) A device according to claim 54, wherein:

the feed plate includes a ring surface configured to be located beneath the downpipe and a plate center;

the ring surface surrounds the plate center; and

the ring surface is subdivided into feeding sections.

57. (new) A device according to claim 56, wherein:

each feeding section comprises at least one pocket delimited by depression or elevation.

58. (new) A device according to claim 56, wherein:



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the number of feeding sections is equal to a multiple of the number of the bridging elements of the outer cylinder.

59. (new) A device according to claim 58, wherein:  
the bridging elements comprise paddles or vanes.

60. (new) A feeding system for the feeding of free-range poultry kept in a coop comprising:

at least one feed delivery pipe held above a floor of the coop and capable of being raised and lowered, the pipe having at least one branch aperture;

a bowl device suspended on the feed delivery pipe and in connection with one of the at least one branch aperture, the bowl device comprising a feed bowl, a cupola, and a downpipe;

the feed bowl being located beneath the downpipe;

the cupola being formed from grid bars in a spoke fashion;

wherein the downpipe comprises an inner cylinder departing from the aperture and an outer cylinder encompassing the inner cylinder;

wherein the feed bowl is suspended by the grid bars of the bowl cupola in such a way that, when the feed delivery pipe is lowered, the bowl comes to rest on the floor of the coop;

wherein the outer cylinder is guided in a rotatable manner as well as in a raisable and lowerable manner on the inner cylinder;

wherein the bowl device includes at least one lifting stop for delimiting a lifting and lowering path of the bowl;

wherein the downpipe includes at least one rotational stop delimiting a rotational path of the outer cylinder in relation to the inner cylinder.

61. (new) A feeding system according to claim 60, wherein:

each rotational stop includes at least one elevation and at least one driver dog;

the at least one elevation is arranged in a predetermined area of the outer surface of the inner cylinder;

the at least one driver dog is located on an inner surface of the outer cylinder; and

the at least one driver dog includes a rotational path of which, at the rotation of the outer cylinder about the inner cylinder, the elevation projects.

62. (new) A feeding system according to claim 61, wherein:

a predetermined area of the outer surface of the inner cylinder at an upper head part includes a reduced cylinder diameter compared to a remaining portion of the inner cylinder; and

the predetermined area is offset in relation to a remaining portion of the inner cylinder as a result of reduced cylinder diameter.

63. (new) A feeding system according to claim 60, wherein:

the outer surface of an upper cylinder section of the outer cylinder includes a threaded spindle; and

free ends of the grid bars of the bowl cupola are connected to a screw ring, which is screwed onto an area of the outer cylinder having the threaded spindle.

64. (new) A feeding system according to claim 63, wherein:

the outer cylinder features at least one spring-elastic engagement cam in an area defined by the threaded spindle.

65. (new) A feeding system according to claim 64, wherein:

each engagement cam is spring-elastic in a radial direction.

66. (new) A feeding system according to claim 64, wherein:

the bowl cupola includes a screw ring;

the screw ring includes cut-outs on an inner circumference surface thereof; and

the cut-outs are capable of engaging the engagement cams with a positive fit.

67. (new) A feeding system according to claim 66, wherein:

the engagement cams and the cut-outs include run-in flanks arranged obliquely to a direction of rotation.

68. (new) A feeding system according to claim 60, wherein:

the outer cylinder is comprised of adjacent outer cylinder sections co-axial to each other, whereby outer face peripheral areas of the outer cylinder sections turned towards each other are connected to one another by outer bridging elements which bridge an outer gap area, which corresponds to an outer interval distance between the outer cylinder sections; and

the inner cylinder is comprised of adjacent inner cylinder sections co-axial to each other, whereby inner face peripheral areas of the inner cylinder sections turned towards each other are connected to one another by inner bridging elements which bridge an inner gap area, which corresponds to an inner interval distance between the inner cylinder sections.

69. (new) A feeding system according to claim 60, wherein:

an end-side cylinder section of the inner cylinder covers the gap area between the outer cylinder sections of the outer cylinder when the outer cylinder is moved by the raising of the feed delivery pipe into a position which is lowered in relation to the inner cylinder;

the inner cylinder and the outer cylinder each include one of the at least one lifting stop; and

the lifting stops of the inner cylinder and the outer cylinder are in mutually opposed positions.

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70. (new) A feeding system according to claim 60, wherein:

the at least one lifting stop comprises a recess in a cylinder inner surface of the outer cylinder and at least one abutment shoulder for the recess projecting radially from the inner cylinder.

71. (new) A feeding system according to claim 70, wherein:

each abutment shoulder for the recess is a part of a radial projection.

72. (new) A feeding system according to claim 60, wherein:

each bridging element is a flat web, of which a web surface plane is aligned radially to an axis of the individual inner cylinder or outer cylinder in each case.

73. (new) A feeding system according to claim 72, wherein:

the bridging elements of the outer cylinder comprise paddles or vanes projecting over a periphery of the outer cylinder.

74. (new) A feeding system according to claim 60, wherein:

the feed bowl includes a feed plate; and

the feed plate includes a plate edge having connecting elements for connecting the feed plate to the bowl cupola.

75. (new) A feeding system according to claim 74, wherein:

the connecting elements include a flap joint and at least one locking or retaining element.

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76. (new) A feeding system according to claim 74, wherein:  
the feed plate includes a ring surface configured to be located beneath the downpipe and  
a plate center;  
the ring surface surrounds the plate center; and  
the ring surface is subdivided into feeding sections.
77. (new) A feeding system according to claim 76, wherein:  
each feeding section comprises at least one pocket delimited by depression or elevation.
78. (new) A feeding system according to claim 76, wherein:  
the number of feeding sections is equal to a multiple of the number of the bridging  
elements of the outer cylinder.
79. (new) A feeding system according to claim 78, wherein:  
the bridging elements comprise paddles or vanes.